Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Request by Echodyne Corp. for Waiver of	)	WT Docket No. 17-352
Section 2.106 and Sections 87.471 and 87.475	)	
of the Commission's Rules	)	

REPLY COMMENTS OF ECHODYNE CORP.

On October 27, 2017, Echodyne Corp. (Echodyne) filed a request for waiver of the U.S. Table of Allocations and the rules applicable to Aviation Services under Part 87 of the Commission's Rules in order to deploy radar transmitters in the 24.45-24.65 GHz band for various radiolocation applications.[1] On December 11, 2017, the Commission's Wireless Telecommunications Bureau placed the Waiver Request on public notice and established a January 10, 2018, deadline for filing initial comments.[2]

The Public Notice generated two responses, both of which expressed full support for Echodyne's request.[3] Echodyne respectfully submits that the lack of any opposition illustrates the non-controversial nature of the Waiver Request and thus clears the way for its expedited processing and approval.[4] Granting Echodyne's request will improve public safety and serve the

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1 *See* Request by Echodyne Corp. for Waiver of Section 2.106 and Sections 87.471 and 87.475 of the Commission's Rules (filed Oct. 27, 2017) (*Waiver Request*).

2 Wireless Telecommunications Bureau Seeks Comment On Echodyne Corporation Request For Waiver To Permit Licensing And Use Of Ground-Based 24.45-24.65 GHz Radar, DA 17-1190, December 11, 2017 (*Public Notice*)

3 Comments of U.S. Border Patrol, WT Docket No. 17-352, DA 17-1190 (filed Dec. 13, 2017); Comments of In-Q-Tel, WT Docket No. 17-352, DA 17-1190 (filed Jan. 9, 2018).

4 Echodyne recognizes the shared nature of the 24.45-24.65 GHz band and that coordination with Federal users through the NTIA's Interdepartmental Radio Advisory Committee ("IRAC") is necessary before a final grant can be issued. Echodyne stands ready to work with all affected agencies to explain the benefits of its proposal and to address any deployment concerns.

public interest by enabling the deployment of drone detection and security systems that protect life and property.

As fully explained in the Waiver Request, Echodyne's detect and avoid (DAA) airborne radar unit – which is designed to operate in full conformance with FCC Rules – can be repurposed for ground-based applications that are nearly identical to those being conducted in the air. While the FCC's rules already allow both ground-based and airborne radars to operate in the 24.45-24.65 GHz band for radionavigation services, some drone detection and security applications would not satisfy a strict interpretation of the definition for radionavigation.[5] These definitional differences in operations are not relevant to spectrum utilization or potential interference to other spectrum users.

Grant of the Waiver Request would enable Echodyne's potential customers, which include both Federal agencies and private sector companies, to use the ground-based radar for drone detection and security. Echodyne is working with Customs and Border Protection and Defense Advanced Research Projects Agency (DARPA) on drone detection and security projects, and has many more potential commercial customers that would like to use Echodyne's radar to secure airspace and detect drones around the perimeters of high-value sites or in emergency situations. For example, Echodyne and potential customers have done demonstrations showing how Echodyne's radar can help public safety agencies keep airspace clear during an emergency response, and how it can alert prison guards to drones carrying contraband.

[5] 47 C.F.R. § 2.1 (defining radionavigation as "[r]adiodetermination used for the purposes of navigation, including obstruction warning").

In short, Echodyne's radars will help track unmanned aircraft in order to provide improved security around soft targets. There is an urgent need for this technology as drones proliferate in our airspace. Use of the 24.45-24.65 GHz band for these devices is ideal – the band has few existing assignments, is already allocated for aeronautical services, and provides favorable propagation for the design of ultra-low cost, size, weight, and power electronically scanning radars.

Grant of the limited waiver relief requested herein would serve the public interest by enhancing public safety and security across the country without increasing the potential for harmful interference to other radio services. Echodyne urges the Commission, in coordination with other affected Federal Agencies, to expeditiously review and approve this request.

Respectfully Submitted,

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